

SEMICONDUCTOR COMPONENT AND METHOD OF MANUFACTURING

Abstract of the Disclosure

5 A semiconductor component includes a semiconductor
layer (110) having a trench (326). The trench has first and
second sides. A portion (713) of the semiconductor layer
has a conductivity type and a charge density. The
semiconductor component also includes a control electrode
10 (540, 1240) in the trench. The semiconductor component
further includes a channel region (120) in the semiconductor
layer and adjacent to the trench. The semiconductor
component still further includes a region (755) in the
semiconductor layer. The region has a conductivity type
15 different from that of the portion of the semiconductor
layer. The region also has a charge density balancing the
charge density of the portion of the semiconductor layer.